Low pressure differential transducer model CXLdp

Accuracy 0,4 % and 0,8 % F.S.

Features

- Rugged ABS package capable of DIN rail or standard panel mounting
- LED power status indicator to assist in trouble shooting or quickly locating the instrument in a duct
- Detachable DIN style terminal block reduces wiring errors and field wiring time
- 25 standard pressure ranges all capable of withstanding 1 bar without damage or calibration change
- Digitally compensated, 0,4 % F.S. and 0,8 % F.S. accuracy models
- NIST traceable

Ranges

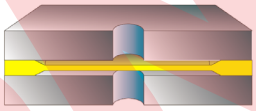
0 ... 25 Pa up to 0 ... 6 kPa dp
±0/25 Pa up to ±0/5 kPa dp

Applications

Low pressure measurement for building energy management and comfort control
Flow measurement
Filter monitoring

Featuring a highly reliable variable capacitance sensor using the patented Ashcroft® SiGlas™ sensor. This ultra thin single crystal diaphragm provides inherent sensor repeatability and stability.

Sensor cross section

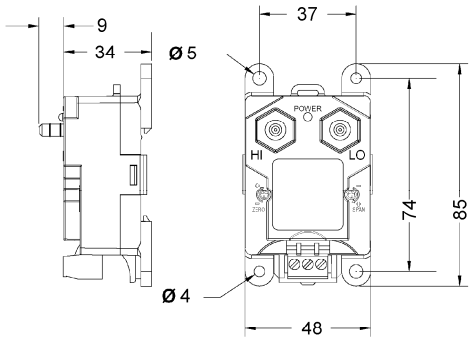


The silicon diaphragm sensor has no glues or other organics to contribute a drift or mechanical degradation over time.

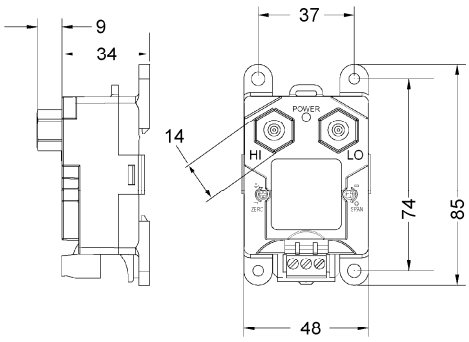
Technical specification	CXLdp
Measuring principle	Differential Si-glass/aluminum capacitor with single crystal silicon diaphragm
Ranges unidirectional in Pa	25 60 100 160 250 400 600 1000 1600 2500 4000 6000
in in. W.C.	0,1 0,25 0,5 0,75 1 1,5 2 2,5 3 5 10 15 25
bidirectional in Pa	±25 ±60 ±100 ±160 ±250 ±400 ±600 ±1000 ±1600 ±2500 ±4000 ±5000
in in. W.C.	±0,05 ±0,1 ±0,25 ±0,5 ±1 ±2 ±2,5 ±3 ±5 ±10
Overpressure	
Proof pressure in bar	1,0
Burst pressure in bar	1,7
Static pressure in bar	1,7
Pressure type	Differential, gauge, vacuum and compound
Process connection	¼“ barbed fittings, 1/8 NPT female, according to ANSI/ASME B1.20.1
Medium	Clean and dry air, non conducting and non corrosive gases
Material	
Process connection	Brass
Sensor element	Silicon, aluminum, glass
Case	NEMA type 1 fire-retardant ABS (meets UL 94-5VA)
Power supply	12 ... 36 VDC for output signal 4-20 mA, 14 … 36 VDC or 24 VAC (±20 %) for VDC output, reverse polarity protected
Output signal	4-20 mA (2-wire), 0-10 VDC (3-wire) with user selectable 0-5 VDC option
Max loop resistance for 4-20 mA	≤ (U_B - 12 V) / 0,022 A
Supply current	Max. 20 mA for 4-20 mA output signal
Optical process diagnostics	LED visual indicator
Accuracy according to DIN 16 086	0,4 % or 0,8 % F.S. (terminal point, includes the effects of linearity, hysteresis and repeatability)
Long term stability	≤ 0,5 % F.S./year
Response time (10 ... 90 %)	250 ms
Warm-up time	15 sec.
Permissible	
Operation temperature	-18 ... 70 °C
Storage temperature	-40 ... 82 °C
Compensated temperature range	2 ... 54 °C
Temperature influence	±0,54 % / 10 K (ref. 20 °C)
Mounting position error (zero adjustable)	≤ 1 % / g (calibration in vertical position is standard)
Adjustments	Zero ±5 % F.S., Span ±5 % F.S., externally accessible
CE-mark/EMC	Compliant to EN 61326 (1997) + A1 (1998) + A2 (2001) Annex A
Electrical connection	Euro style pluggable terminal block accepts 12-26 gauge wire (0,128 bis 3,31 mm²), optional ½” conduit/plenum mounting bracket, suitable for cable gland M20x1,5
Mounting	Threaded fastener for wall mounting or DIN rail types EN 50022, EN 50035 and 50045
Protection according EN 60 529/IEC 529	IP40, IP54 assembled with ½” conduit/plenum mounting bracket and cover kit
Weight in kg	0,07; complete with ½” conduit/plenum mounting bracket and cover kit 0,15

All specifications are subject to change without notice.

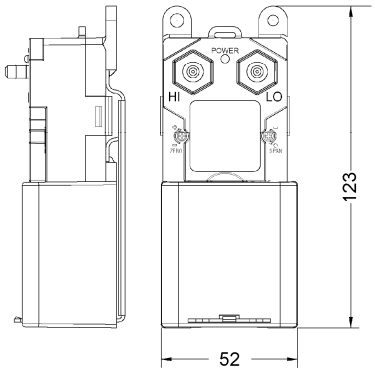
General dimensions in mm



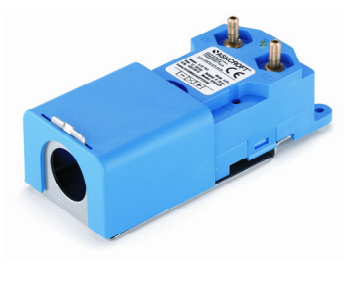
MB2 1/4" barbed fittings



F01 1/8 NPT female fittings

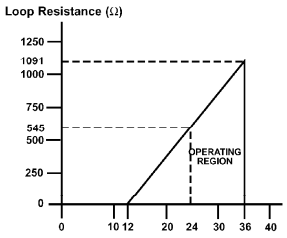


Standard DIN rail mount

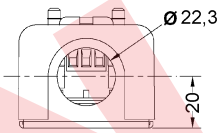


Optional ½“ plenum/conduit kit

Load Limitations 4-20mA Output



LOOP SUPPLY VOLTAGE (VDC)
V_{min} = 12V+ [.022A*(R_L)]
*includes a 10% safety factor
$R_L = R_S + R_W$
R_L = Loop Resistance (ohms)
R_S = Sense Resistance (ohms)
R_W = Wire Resistance (ohms)



Assembled with 1/2" conduit/plenum kit

Rev. A

Order information

Type	Accuracy	Process connection	Output signal	Ranges in. W.C.	Ranges Pa and kPa	Options
(CX) CXLdp	**(4)** 0,4 % **(8)** 0,8 %	**(MB2)** ¼“ barbed male **(F01)** 1/8 NPT female	**(42)** 4-20 mA **(10)** 0-10 VDC[1)]	**Unidirectional** **(P1IW)** 0/ 0,1 **(P25IW)** 0/ 0,25 **(P5IW)** 0/ 0,5 **(P75IW)** 0/ 0,75 **(1IW)** 0/ 1,0 **(2IW)** 0/ 2,0 **(2P5IW)** 0/ 2,5 **(3IW)** 0/ 3 **(5IW)** 0/ 5 **(10IW)** 0/ 10 **(25IW)** 0/ 25	**Unidirectional** **(25PA)** 0/ 25 Pa **(60PA)** 0/ 60 Pa **(100PA)** 0/ 100 Pa **(160PA)** 0/ 160 Pa **(250PA)** 0/ 250 Pa **(400PA)** 0/ 400 Pa **(6PA)** 0/ 600 Pa **(1KPA)** 0/ 1 kPa **(1P6KPA)** 0/ 1,6 kPa **(2P5KPA)** 0/ 2,5 kPa **(4KPA)** 0/ 4 kPa **(6KPA)** 0/ 6 kPa	**(NH)** Tagging wired **(AH)** ½” conduit/plenum mounting bracket and cover kit (delivered with transducer) **(101A213-01)** ½” conduit/plenum mounting bracket and cover kit (separately ordered) **(CD4S)** 3-point calibration certificate **(RH)** 9-point calibration certificate, traceable to a national standard
				Bidirectional **(P1IWL)** ±0,1 **(P25IWL)** ±0,25 **(P5IWL)** ±0,5 **(1IWL)** ±1 **(2IWL)** ±2 **(5IWL)** ±5 **(10IWL)** ±10 **(15IWL)** ±15	**Bidirectional** **(25PAL)** ±25 Pa **(60PAL)** ±60 Pa **(100PAL)** ±100 Pa **(160PAL)** ±160 Pa **(250PAL)** ±250 Pa **(400PAL)** ±400 Pa **(6PAL)** ±600 Pa **(1KPAL)** ±1 kPa **(1P6KPAL)** ±1,6 kPa **(2P5KPAL)** ±2,5 kPa **(4KPAL)** ±4,0 kPa **(5KPAL)** ±5,0 kPa	

1) includes user selectable option 0-5 VDC output

Order example

Type	Accuracy	Process connection	Output signal	Range	Options
CX	8	MB2	42	100PA	AH

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